# Unit 05 – Data Modelling

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# Learning Aim B1 – Functional Specification

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# Learning Objectives

To understand what is meant by a functional specification.

To understand the different parts of a functional specification.

To be able to create a functional specification from a given scenario.

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# Functional Specification

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# The Example Scenario

To help you understand Learning Aims B and C you have been given a small scenario.

We will use this scenario to design, build and test a small data model.

The documents and techniques you use here will be a practice for your actual assignment.

Take some time to read the data model scenario.

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# What is a Functional Specification?

Before you begin a designing and building a data model,

You need to produce a document that states exactly what the model is going to ***do***.

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# What is a Functional Specification?

You would then show this to your client to make sure they agree this is what they want.

This means ***you*** know what you are going to do.

***The client*** knows what you are going to do.

The process of agreeing a functional specification with a client or other stakeholder is called ***SIGN OFF.***

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# What goes in a Functional Specification?

- The following sections go into a Functional Specification:
- The nature of the problem.
- Functions the model must perform.
- Identify the User Interface.
- Constraints.
- Success Criteria.

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# The Nature Of The Problem.

This is the introduction to your Functional Specification.

This is where you summarise the scenario.

Identify the ***USER NEEDS*** – what they want the model to do

Identify the ***CLIENT EXPECTATIONS*** – what they need to get out of the model.

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# Class Tasks B1 – Nature Of the Problem

| Scenario Summary |
| --- |
| |

| User Needs | |
| --- | --- |
| 1 | |

| Client Expectations | |
| --- | --- |
| 1 | |

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# Class Tasks B1 – Nature Of the Problem

Individually or in small groups.

Identify the nature of the problem for the given scenario.

Discuss your findings with the group.

**Time allowed: 10 minutes.**

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# Class Tasks B.1 – Nature Of the Problem Suggested Answers

**Scenario Summary**

A plumbing company records a job schedule and expenses on a paper-based system.

They want to be able to store all information in one place so they can produce a single report tracking income, total income, pending income, total expenditure, and total profit.

They want a spreadsheet model to track income and expenditure and predict their corporation tax payments to HMRC. In addition, the company want to use this model to work out how to keep their tax payments under £1000

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# Class Tasks B1 – Nature Of the Problem Suggested Answers

| User Needs | |
|---|---|
| 1 | The user needs to be able to track income |
| 2 | The user needs to be able to track expenditure |
| 3 | The user needs the sheet to minimise user error where possible |
| 4 | The user needs the sheet to have 4 worksheets |
| 5 | The user needs the spreadsheet to be as automated as possible. |
| 6 | The user needs the model to be secured so that only company employees can use it. |

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# Class Tasks B1 – Nature Of the Problem
# Suggested Answers

| Client Expectations | |
|---|---|
| **1** | The model needs to predict their corporation tax payments to HMRC |
| **2** | The model needs to produce a report of total income, pending income, total expenditures, and profit. |

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# Self-Check: Lesson Review

Can I explain what a functional specification is?

Can I identify the nature of a problem?

Can I identify the functions a model must perform?

Can I identify inputs and outputs for a model?

Can I identify constraints and success criteria?

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# Further Reading

**Websites**

**Videos**

**Textbook:** pp290

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